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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/577,707

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Tibor Pemecker

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EXAMINER

REDDY, KARUNA P

ART UNIT

PAPER NUMBER

1796

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/577,707

Applicant(s)

PERNECKER ET AL.

Examiner

Karuna P. Reddy

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-15 is/are rejected.
- 7) ☒ Claim(s) 9 and 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to amendment filed on 10/30/2007. Claims 1-6 are cancelled and claims 7-15 are added. Claims 7-15 are currently pending in the application.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Objections

3. Claims 9-15 are objected to because of the following informalities: claim 9 (lines 3-6) and claim 10 (line 1) recite a listing of monomers and a polymerization initiators respectively. The usage of acronym in parenthesis for the listed monomers and a polymerization initiator is not recommended under current U.S. practice. Appropriate correction is required.

Claims 11-15 are dependent on claims 9-10 and are subsumed by this objection.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 7-15 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 7 recites "a portion of" in step (c) (line 1) and is not disclosed either in the description or examples listed in the specification as originally filed.

Claims 8-15 are dependent on claim 7 and are subsumed by this rejection.

7. Claim 8-15 recites trademark/trade name "Hitanol BC-2020". Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the

trademark/trade name is used to identify/describe a polymerizable surfactant and, accordingly, the identification/description is indefinite.

Claims 9-15 are dependent on claim 8 and are subsumed by this rejection.

8. Claim 9 recites the limitation "2-ethyl hexyl acrylate" in line 3. There is insufficient antecedent basis for this limitation in the claim. The hydrophobic monomer in claim 7 is an alkyl (meth)acrylate ester of C₁₋₄ alcohol, while 2-ethyl hexyl acrylate is an ester of alcohol with more than 4 carbon atoms.

Claims 10-15 are dependent on claim 9 and are subsumed by this rejection.

Claim Rejections - 35 USC § 103

9. Claims 7 and 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mallya et al (US 6, 489, 387 B2) in view of Gerst et al (US 6, 254, 985 B1).

Mallya et al disclose a process (see example 1) where in the pre-emulsion feed soap solution is made by dissolving surfactant in water. A monomer mix was made of 2-ethyl hexyl acrylate, n-butyl acrylate, methyl acrylate and acrylic acid. An aqueous feed solution was prepared by dissolving potassium persulfate in de-ionized water. A kick off solution was prepared by dissolving 0.75 g of potassium persulfate in de-ionized water. The monomer mix was added to the pre-emulsion with mixing. To the reactor charge was added the kickoff initiator

solution. Ten minutes after the addition of pre-emulsion feed was started, aqueous feed was added. The latex was neutralized with a dilute ammonium hydroxide solution to a pH of 7.9. The functional anionic surfactants include salts of sulfated nonyl and octyl phenoxy poly(ethyleneoxy) ethanols (column 5, line 65-66). Other monomers such as styrene may be used to modify the T_g (column 7, lines 30-32).

The PSA's of present invention may be employed as adhesives which as part of a label construction have a "no label look". The "no label look" is a printed label which on application to a container, substrate or the like gives the appearance of direct printing (column 2, lines 53-58). In addition to providing a no label look to transparent and clear face stocks where the resistance of adhesives to whitening of water makes the adhesive uniquely useful for label applications (column 3, lines 33-36).

Mallya et al is silent with respect to the amount of styrene in the monomer mixture, differs in the order in which components are mixed together.

However, Gerst et al teach pressure sensitive adhesives comprising alkyl acrylates and 5 to 30% by weight of monomer b (abstract). Monomers (b) comprise monomers which contain no functional group other than the ethylenically unsaturated group and have a glass transition temperature above 0°C (column 2, lines 20-26). Examples of monomers (b) include vinylaromatic compounds such as α -methyl styrene (32-51). It is preferable that T_g of the polymer is from -60°C to $+10^{\circ}\text{C}$ (column 3, lines 18-19). Therefore, it would have

been obvious to one skilled in the art at the time invention was made to use styrene in an amount of up to 30% by weight because Mallya et al contemplates adding monomers such as styrene to adjust T_g and Gerst et al have proven successfully the addition of monomer such as α -styrene in an amount of 5 to 30% by weight to yield a polymer with T_g preferably between -60°C to $+10^{\circ}\text{C}$ and one of ordinary skill in the art would expect α -styrene in an amount of between 5 to 30% in the pre-emulsion to yield a polymer with a desirable glass transition temperature, motivated by expectation of success.

With respect to the order of combining various components, the composition is substantially similar to that of the prior art though the sequence of mixing components differs. Therefore, it would have been obvious to one skilled in art at the time invention was made to alter the sequence and essentially arrive at the present claims, absent evidence of unexpected results. See *In re Burhans*, 154 F.2d 690, 69 USPQ 330 (CCPA 1946) (selection of any order of performing process steps is prima facie obvious in the absence of new or unexpected results); *In re Gibson*, 39 F.2d 975, 5 USPQ 230 (CCPA 1930) (Selection of any order of mixing ingredients is prima facie obvious.).

10. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mallya et al (US 6, 489, 387 B2) in view of Gerst et al (US 6, 254, 985 B1).

The discussion with respect to Mallya et al in view of Gerst et al in paragraph 9 above is incorporated here by reference. Furthermore, Mallya

discloses that the water whitening-resistant pressure sensitive adhesive is formed by copolymerizing a monomer mixture comprising at least one alkyl acrylate ester of an alcohol containing at least four carbon atoms, at least one polar comonomer and at least one partially water soluble comonomer (abstract). Alkyl acrylate esters serve to control T_g of the formed polymer and 2-ethylhexyl acrylate is a preferred monomer (column 6, lines 31-43) which reads on the hydrophobic monomer of claim 9. A partially water soluble comonomer includes methyl acrylate and the content is preferably above about 7% to about 25% by weight (column 6, lines 49-56) and reads on partially hydrophobic monomer of claim 9. In addition to partially water soluble comonomer, a highly polar monomer is required in the range of from about 1 to about 10% by weight. Mixture of acrylic and methacrylic acid are preferred (column 6, lines 61-67) and read on the hydrophilic monomer of claim 9.

Mallya et al in view of Gerst et al differs with respect to the polymerizable surfactant.

However, Richards et al teach a water-whitening resistant latex pressure sensitive adhesive (title). See table 2, wherein monomers substantially similar to that of the present claims are used to form the latex. Polymerization is carried out in the presence of a reactive emulsifier (paragraph 0011). Examples of preferred emulsifiers include Hitenol BC-20 and Hitenol BC-10 (paragraph 0015). Therefore, it would have been obvious to add the emulsifier of Richards et al to the polymerization mixture of Mallya et al, because Mallya et al contemplates

adding other anionic surfactants with higher levels of ethylene oxide (moles per mole) to stabilize the emulsion particles during polymerization or other reasons, while Richards et al have shown that Hitenol BC-10 and Hitenol BC-20 when used in a substantially similar composition improves water-whitening resistance, and one of ordinary skill in the art would expect addition, of Hitenol BC-20, to work for the PSA of Mallya et al. It is noted that, while trade names "Hitanol BC-20" of Hitachi (Present claims) appear to be different from "Hitenol BC-20" of Montello (Richards), both of them contain the same polymerizable surfactant.

Response to Arguments

11. Applicant's arguments with respect to claims 1-6 have been considered but are moot in view of the cancellation of these claims.

12. Applicant's arguments filed 10/30/2007 have been fully considered but they are not persuasive. Specifically applicants argue that (A) the choice of surfactant and type of monomers used to prepare the aqueous dispersion will significantly affect the properties of PSA in an unpredictable way; (B) Mallya teaches away from using surfactant with higher levels of ethylene oxide such as 20 moles of ethylene oxide per molecule of surfactant; and (C) the preferred surfactant for use in the present invention is Hitanol BC20 while that in US 2004-0076785 is Hitanol BC10.

With respect to (A), choice of surfactant and monomers used in the present application give rise to unexpected results is not supported by any data.

With respect to (B), Mallya et al in fact teaches that other anionic surfactants with higher levels of ethylene oxide (moles per mole) may be used to stabilize the emulsion particles during polymerization or other reasons.

With respect to (C), examples of emulsifiers include both Hitenol BC-10 and Hitenol BC-20 (paragraph 0015).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will

the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karuna P. Reddy whose telephone number is (571) 272-6566.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number:
10/577,707
Art Unit: 1796

Page 11

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